

CLAIMS

What is claimed is:

1. A coating for a prosthesis, comprising an ethylene vinyl alcohol copolymer, wherein the copolymer can be dissolved when added to a solvent comprising iso-propyl alcohol and water.
5. The coating of Claim 1, wherein the copolymer comprises a mole percent of ethylene of about 27% to about 29%.
2. The coating of Claim 1, wherein the copolymer comprises a mole percent of ethylene of about 29%.
3. The coating of Claim 1, wherein the copolymer comprises a mole percent of ethylene of about 29%.
10. 4. The coating of Claim 1, wherein the copolymer is Soarnol®.
5. The coating of Claim 1, wherein the prosthesis is selected from a group of balloon-expandable stents, self-expandable stents, and grafts.
6. The coating of Claim 1, additionally comprising an active agent carried by the copolymer for inhibiting abnormal or inappropriate migration or proliferation of smooth muscle cells.
15. 7. The coating of Claim 1, additionally comprising actinomycin D, or analogs or derivatives thereof, carried by the copolymer.
8. The coating of Claim 1, additionally comprising paclitaxel or docetaxel carried by the copolymer.
20. 9. The coating for Claim 1, wherein the copolymer acts as an intermediary tie layer between a metallic surface of the prosthesis and a coating layer carrying an active agent.

10. The coating for Claim 1, wherein the copolymer acts a diffusion barrier disposed over a coating layer carrying an active agent for reducing the rate at which the active agent is released.

11. A therapeutic composition for inhibiting the narrowing of a region 5 of a blood vessel, comprising an ethylene vinyl alcohol copolymer and an active agent,

wherein the copolymer comprises a mole percent of ethylene of about 27% to about 29%, and

10 wherein the active agent is released from the copolymer to inhibit the narrowing of a region of a blood vessel.

12. The therapeutic composition of Claim 11, wherein the narrowing is caused by restenosis.

13. The therapeutic composition of Claim 11, wherein the active agent is actinomycin D, paclitaxel, docetaxel, or analogs or derivatives thereof.

15 14. A method of forming a coating for a prosthesis, comprising the acts of:

applying a composition comprising an ethylene vinyl alcohol copolymer and a solvent to the prosthesis to form a coating, the solvent comprising iso-propyl alcohol and water, wherein the coating is formed 20 when the solvent is allowed to be essentially removed from the composition.

15. A coating for a prosthesis produced in accordance with the method of Claim 14.

16. The method of Claim 14, wherein the prosthesis is selected from a group of balloon-expandable stents, self-expandable stents, and grafts.
17. The method of Claim 14, additionally comprising heating the composition applied to the prosthesis to a temperature greater than about the glass transition temperature of the copolymer and less than about the melting temperature of the copolymer.  
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18. The method of Claim 14, wherein the composition additionally comprises an active agent for inhibiting restenosis of a blood vessel, wherein the active agent is contained in the coating formed on the prosthesis.
19. The method of Claim 18, wherein the active agent is actinomycin D, paclitaxel, docetaxel, or analogs or derivatives thereof.  
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20. The method of Claim 14, wherein the copolymer comprises a mole percent of ethylene of about 27% to about 29%.
21. A stent comprising a generally tubular structure coated with an ethylene vinyl alcohol copolymer.  
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22. The stent of Claim 21, wherein the copolymer comprises a mole percent of ethylene of about 27% to about 29%.
23. The stent of Claim 21, wherein the copolymer contains actinomycin D, docetaxel, or paclitaxel.  
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24. The stent of Claim 21, wherein the copolymer contains an active agent to inhibit abnormal or inappropriate migration or proliferation of vascular smooth muscle cells.

25. A solution for coating a medical device comprising:

(a) an amount of iso-propyl alcohol and water solvent; and

5 (b) an amount of an ethylene vinyl alcohol copolymer dissolved in  
the solvent.

26. The solution of Claim 25, additionally including an amount of an active  
10 agent for inhibiting the narrowing of a blood vessel.

27. The solution of Claim 25, additionally including an amount of  
actinomycin D, docetaxel, or paclitaxel.